

Naphthylacetic Acid Corn Plant Influence on the Development of the Root System

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Annotation: This article discusses the effect of corn on the development of the root system of corn using NAA (naphthalene acetic acid), one of the regulators that affects the maximum yield of plants, increasing their productivity.

Keywords: NAA (naphthalene acetic acid), corn, plant, regulator, stem, solution, mineral, cell, agriculture, crop production, concentration, development.

As the demand for agricultural products around the world has been increasing in recent years, in order to maximize crop yields, increase their productivity, grow quality products, produce higher yields and more income from less land, agricultural scientists are focusing on maximizing crop yields. Many agricultural scientists are conducting research. Regulators that affect plant growth have been synthesized and are widely used to maximize plant yields. Currently, 1-MCP (1-methylcyclopropene), SNK (circanaphthyl acid) and other regulators are used to increase crop yields and maximize crop yields. Regulators play a key role in the cell. The parameters of cell division, vascular tissue, differentiation, root initiation, leaf and fruit development, fruiting and flowering, plant growth and yield are significantly increased.

Like high synthetic auxin, SNC is a regulator that increases plant growth and efficiency. When applied at the desired concentrations, SNK promotes abnormal root formation and good rooting activity, thereby accelerating the process of absorption of nutrients into plant cells. It also promotes cell division and cell development, delaying the onset of aging.

Corn is a monocotyledonous plant, and like all monocotyledons, the root system consists of a poplar root system. In the process of germination from the seeds of plants, they germinate from the ground by absorbing the proteins and carbohydrates contained in the seeds as food. During the initial period of germination, the root system begins to absorb fertilizers from the soil. The more well-developed the root system, the more nutrients the plant receives from healthy, vigorous soil. It also makes it easier to absorb water-soluble minerals and fertilizers.

In order to accelerate the germination of maize plants using paper chromatography and to develop the root system

3 different concentrations of 10, 20 and 30 ppm (0.001, 0.002 and 0.003%) were used in the regulator of SNK (acetic acid). Corn usually germinates in 10-12 days at a soil temperature of 10 ° C, and can germinate in 8-9 days depending on the moisture content if the temperature is high. First, a regulator of 10 ppm SNK (acetic acid) is used, as a result of which the corn plant begins to germinate in 7-8 days at a temperature of 15-25 oC, and in a solution with a concentration of 20 ppm the seeds germinate from 7 days. and in a solution with a concentration of 30 ppm, the seeds begin to germinate from the 6th day. It has a very effective effect on the development of the root system, which is reflected in the growth of roots, lateral veins, the formation of budding root system. In the first week after germination of the corn plant, the height of the plant and the development of the root system are as follows: in a solution of 10 ppm concentrated SNK (acetic acid) the length of the root increases by 20 cm and the number of side roots up to 10, bo. The

height of the stem reaches 10-13 cm, and in a solution of 20 ppm concentration increases by 30 cm to 15 lateral roots, the height of the neck increases by 12-15 cm, and in a solution of 30 ppm concentration the root system reaches 40 cm, and the lateral branches Up to 18, and the height of the neck reached 15-20 cm.

№	SNK (concentration)	Germination period (only)	Germination (%)	Root length (cm)	Number of side roots	Height at day 7 (cm)
1	10 ppm	7-8	90-9	20-25	8-10	10-13
2	20 ppm	7	90-95	30-35	10-12	12-15
2	30 ppm	6	90-	35-40	15-18	15-20

It can be seen that the regulator of SNK (acetic acid) has a positive effect on the germination, growth and development of the root system of corn. As corn is a monocotyledonous plant, this regulator can also be used in wheat, oats, barley and rice. The effect is particularly high, given that the rice plant grows in an aquatic environment.

Conclusion: From the results obtained, it can be concluded that today the demand for food, livestock and poultry products is growing significantly. In this case, it is possible to get a high yield from agricultural products, using a regulator SNK (circaphthalic acid) to provide the market with quality products from a small area, save water and spend less money.

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